BRUHATH BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

EMB

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1st and Final Bill towards for the work of

Improvements to roads and drains at Chikkabommasandra Main and cross roads in ward no -04.

ESTIMATE COST: RS.99.00 Lakhs

JOB NUMBER:004-21-000023.

Asst. Executive Engineer,
Yelahanka new town sub division,
BBMP, BANGALORE-64

1st and Final bill

Name of work: Improvements to roads and drains at Chikkabommasandra Main and cross roads in ward no -04.

Work Order No: BBMP / EE/ YNK.D / E-PMT-05 /W.O / 00205 /2020-21 dt: 11-01-2021.

JOB NUMBER: 004-21-000023.

Estimate Cost: 99.00 lakhs.

As No: EE/ YNK.D/ AS / 25 /2020-21 dt :18-8-2020.

Ts No : CE / YNK.Z/ TS / 99 /2020-21 dt : 28-8-2020.

Name of Contractor : Sri. Vijaya kumar R

MEASUREMENTS

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1 Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications (I No-19 1, P No-143), 8km lead	Cum							
	Premeasument Recorded vide excel sheet page no (1)						563.74		
							563.74	225.61	127185.00
2	Filling in foundation with granite/trap broken metal 100mm and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications a) 40mm Jelly	Cum							
	Premeasument Recorded vide excel sheet page no (2)						0.56		
3	b) 20 mm jelly						0.56	1992.25	1116.00
	Premeasument Recorded vide excel sheet page no (2)						0.56		
4	c) course sand						0.56	1992.25	1116.00
	Premeasument Recorded vide excel sheet page no (2)						0.56		
5	d) Fine sand						0.56	2778.25	1556.00
	Premeasument Recorded vide excel sheet page no (2)						0.25		
6	e) 12 5mm chips						0.25	2778.25	695.00
	Premeasument Recorded vide excel sheet page no (2)						0.44		

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
							0.44	1992.25	877.00
7	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984- 995 with latest amendments and conveyingto work site including loading and unloading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe alround to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle Tee, stub ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for HDPE Grade PE80-PN5 0. 630 mm dia. (Perforated Pipe for Rain Water Harvesting Pit)	Mtrs							
	Premeasument Recorded vide excel sheet page no (2)						9 00		
							9.00	11341.79	102076.00
8	Providing of Geonets for Rain Water Harvesting pit on top of the filler media as specified indrawings or as approved by Engineer Incharge Data Rate	Sqm							
	Premeasument Recorded vide excel sheet page no (3)						1.55		
							1.55	74.44	115.00
9	KSRRB M2100-10 Providing and laying Plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates @ 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding and centering complete as per specifications.	Cum							
	Premeasument Recorded vide excel sheet page no (3) to (4)								
							185.14	5682.15	1051985.00

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centring, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2000. Including cost of materials, labour, HOM complete as per specifications.	Cum							
for rcc drain chikkabommasandra main road LHS		1	30.00	1.35	0.23	9.32		
		1	30.00	1.35	0.23	9.32		
		1	30.00	1.35	0.23	9.32		
		1	30.00	1.35	0.23	9.32		
		1	15.00	1.35	0.23	4.66		
		1	30.00	1.35	0.23	9.32		
		1	16.00	1.35	0.23	4.97		
chikkabommasandra shivayya house road LHS		1	30.00	0.90	0.15	4.05		
		1	8.40	0.90	0.15	1.13		
RHS		1	30.00	0.90	0.15	4.05		
		1	8.40	0.90	0.15	1.13		
		1	12.00	0.90	0.15	1.62		
		1	26.00	0.90	0.15	3.51		
		1	21.00	0.90	0.15	2.84		
culverts								
chikkabommasandra main road		1	9.00	1.35	0.23	2.79		
		1	8.00	1.35	0.23	2.48		
		1	5.00	1.35	0.23	1.55		
		1	5.50	1.35	0.23	1.71		
side walls								
chikkabommasandra main road LHS		2	30.00	0.23	1.00	13.80		
		2	30.00	0.23	1.00	13.80		
		2	30.00	0.23	1.00	13.80		
		2	30.00	0.23	1.00	13.80		
		2	15.00	0.23	1.00	6.90		
		2	30.00	0.23	1.00	13.80		
		2	16.00	0.23	1.00	7.36		
chikkabommasandra shivayya house road LHS		2	30.00	0.15	0.75	6.75		
RHS		2	8.40	0.15	0.75	1.89		
		2	30.00	0.15	0.75	6.75		
		2	8.40	0.15	0.75	1.89		

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			2	12.00	0.15	0.75	2.70		
			2	26.00	0.15	0.75	5.85		
			2	21.00	0.15	0.75	4.73		
	culverts								
	chikkabommasandra main road								
			2	9.00	0.23	0.90	3.73		
			2	8.00	0.23	0.90	3.31		
			2	5.00	0.23	0.90	2.07		
			2	5.50	0.23	0.90	2.28		
	drain edge		1	30.00	0.30	0.10	0.90		
			1	30.00	0.30	0.10	0.90		
			1	30.00	0.30	0.10	0.90		
			1	20.00	0.30	0.10	0.60		
							211.57	7409.57	1567659
11	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.MORTH Specification No. 1600 & 2200 for TMT bars Fe 500	Tonne							
	Premeasument Recorded vide excel sheet page no (4) & (6)								
17	KSSRB M300-14 Excavation for roadwork in all types of soil by mechanical menas including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and croos sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specification. Loading and unloading with 10km lead	cum					16.20	77543.87	1256211.00
	Premeasument Recorded vide excel sheet page no (7)								
							266.32		
							266.32	67.01	17846.00

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
15	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400 mm high and 450 mm in length finished with CM 1:3 plastering and finishing cutting including form work , curing , including cost of materials labour charges of machineries , loadding and unloading , lead and lift , transportation etc complete with all lead and lift as per the direction of engineer-in-charge	No's							
	LHS						214.00		
	RHS						215.00		
							429.00	**453.24**	**194440.00**
16	KSRB 800-1 Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications (Page no 180 & item no 24.1)	Sqm							
	LHS		1	30.00		0.40	12.00		
			1	30.00		0.40	12.00		
			1	30.00		0.40	12.00		
			1	7.00		0.40	2.80		
	RHS		1	30.00		0.40	12.00		
			1	30.00		0.40	12.00		
			1	30.00		0.40	12.00		
			1	6.00		0.40	2.40		
							77.20	**88.87**	**6861.00**
18	Construction of granular sub-base Grading-V as Sub-Base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing in mechanical mix plant at OMC. Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98% proctor density, complete as per specifications. Clause 401 of MORTH V Revision.	Cum							
	Premeasument Recorded vide excel sheet page no (7) to (8)						199.23		
							199.23	**2090.68**	**416526.00**

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
19	KSRRB M400-17: Providing, Laying, Spreading and Compacting crushed stone aggregates of granite/ trap/ Basalt to wet mix macadam specifications including premixing the material with water at OMC in Mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406. (Page No. 155. Item No. 20.18)	Cum							
	Premeasument Recorded vide excel sheet page no (8)								
							305.49		
							305.49	2097.34	640708.00
20	KSRRB M500-6: Providing and Applying primer coat with S.S bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg /sqm using mechanical means complete as per specifications Clause 502 of MORTH Clause 502 of MORTH V revision	Sqm							
	Premeasument Recorded vide excel sheet page no (9)								
							1328.20		
							1328.20	31.10	41307.00
21	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete with all lead and lift as per the direction of engineer-in-charge	Sqm							
	Premeasument Recorded vide excel sheet page no (10)								
							1839.30		
							1839.30	5.55	10208.00

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Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
22	KSRRB M500-7: Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg/10 sqm, heating bitumen in boiler fitted with spray set (including cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications.	Sqm							
	Premeasument Recorded vide excel sheet page no (10)(11)						3173.47		
							3173.47	13.33	42302.00
23	KSRRB M500-17: Providing and laying Dense Graded Bituminous Macadam using crushed aggregates of crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete in all respects complete as per specifications. MORTH Specification No,507. Using 100/120 TPH capacity HMP with sensor paver Gr-II (50mm to 75mm) with 4.5% VG-30 Bitumen (Page No 160. I No-21.17.6)	Cum							
	Premeasument Recorded vide excel sheet page no 6) (10)						84.99		
							84.99	6715.27	570754.00

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Description of item	Unit	No	L	B	D	Qty	Rate	Amount
Providing and laying bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015 Do- using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4% of modified bituminous binder consisting of 4.97% of VG-30 Bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) (Page No. 171 Item NO.21.78.12)	Cum							
chikkabommasandra 1st cross road		1	30.00	(3.6+4.0)/2	0.04	4.56		
		1	30.00	(4.0+3.9)/2	0.04	4.74		
		1	30.00	(3.9+4.0)/2	0.04	4.74		
		1	30.00	(4.0+3.9)/2	0.04	4.74		
		1	2.00	(3.9+4.0)/2	0.04	0.32		
2nd cross road		1	30.00	(3.7+4.2)/2	0.04	4.74		
		1	30.00	(4.2+4.0)/2	0.04	4.92		
		1	30.00	(4.0+4.0)/2	0.04	4.80		
		1	30.00	(4.0+3.8)/2	0.04	4.68		
		1	4.00	(3.8+4.0)/2	0.04	0.62		
1st main road		1	30.00	(5.3+5.5)/2	0.04	6.48		
		1	25.00	(5.5+5.3)/2	0.04	5.40		
shivayya house road		1	30.00	(4.3+4.3)/2	0.04	5.16		
		1	8.50	(4.3+4.3)/2	0.04	1.46		
cross road		1	29.00	(3.0+3.0)/2	0.04	3.48		
2nd main road muddanna house		1	30.00	(6.3+5.0)/2	0.04	6.78		
		1	30.00	(5.0+3.2)/2	0.04	4.92		
		1	19.00	(3.2+3.4)/2	0.04	2.51		
3rd main road		1	30.00	(4.6+4.0)/2	0.04	5.16		
		1	30.00	(4.0+4.6)/2	0.04	5.16		
		1	30.00	(4.6+4.5)/2	0.04	5.46		
		1	30.00	(4.5+4.3)/2	0.04	5.28		
		1	30.00	(4.3+4.6)/2	0.04	5.34		
		1	30.00	(4.6+4.0)/2	0.04	5.16		
		1	6.00	(4.0+4.6)/2	0.04	1.03		
		1	23.60	(2.6+2.7)/2	0.04	2.50		
bellmouth		1	9.50	(3.5+3.8)/2	0.04	1.39		
CBS main road road cutting		1	30.00	(1.5+1.8)/2	0.04	1.98		
		1	30.00	(1.8+1.5)/2	0.04	1.98		
		1	30.00	(1.5+1.8)/2	0.04	1.98		
		1	30.00	(1.8+1.5)/2	0.04	1.98		
		1	30.00	(1.5+1.8)/2	0.04	1.98		
		1	18.50	(1.8+1.5)/2	0.04	1.22		
		1	18.00	(6.0+6.0)/2	0.04	4.32		
						126.97	7899.47	1003008

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
26	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and	Nos							
			80				80.00		
			80				80.00		
			36				36.00		
							196.00	374.37	73377
27	KSRRB M200-24 Dismentling of cement concrete pavament by machanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled materials stacking serviceable and unserviciable materials seperately complete as per specifications loadn and unloading with 8 km lead	cum							
	Premeasument Recorded vide excel sheet page no 6407,						164.91		
							164.91	1020.14	168227.00

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	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
28	Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum,Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound.	Cum							
	shivanna house road chikkabommasandra		1	30.00	(4.6+4.7)/2	0.20	27.90		
			1	5.70	(4.7+4.65)/2	0.20	5.33		
	cross road		1	21.00	(3.6+3.5)/2	0.20	14.91		
			1	15.00	(3.0+3.0)/2	0.20	9.00		
	house no 23		1	22.40	(3.0+3.0)/2	0.20	13.44		
			1	13.00	(3.5+3.5)/2	0.15	6.83		
			1	11.00	(5.7+6.1)/2	0.15	9.74		
			1	24.10	(2.5+2.5)/2	0.20	12.05		
							99.19	8461.09	541683
							Sub Total		7906537.04
							12% GST		948784.45
							Total		8855321.49
12	Providing and Fixing pre cast covering Slab 100mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work, curing, including form cost of all materials, labour, hire charges of Machinery, loading, unloading, laid and lift, transportation etc., complete. As per Engineer IN charge. (Data Rate).	Sqm							
	infront of sunshine shool		1	30.00	0.90		27.00		
				16.00	0.90		14.40		
	chikkabommasandra shivayya house road LHS		1	30.00	0.75		22.50		

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	RHS		1	8.40	0.75		6.30		
			1	30.00	0.75		22.50		
			1	8.40	0.75		6.30		
			1	11.00	0.75		8.25		
			1	26.00	0.90		23.40		
				21.00	0.90		18.90		
13	Providing and Fixing pre cast covenng Slab 150 mm thick made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work, curing, including form cost of all materials, labour, hire charges of Machinery, loading, unloading, laid and lift transportation etc., complete As per Engineer IN charge (Data Rate).	Sqm					149.55	2449.18	366275.00
	for rcc drain chikkabommasandra main road LHS		1	28.00	1.50		42.00		
			1	26.00	1.50		39.00		
			1	28.30	1.50		42.45		
			1	30.00	1.50		45.00		
			1	4.00	1.50		6.00		
			1	25.00	1.50		37.50		
			1	13.00	1.50		19.50		
							231.45	2612.66	604700.16
14	Providing and Fixing pre cast covenng Slab 250 mm thick made out of CC 1:1.5:3 and using graded granite jelly 20mm Down size with steel reinforcement including form work, curing, including form cost of all materials, labour, hire charges of Machinery, loading, unloading, laid and lift, transportation etc., complete. As per Engineer IN charge (Data Rate).	Sqm							
	Culverts								
	chikkabommasandra main road		15	1.50	0.60		13.50		
			10	1.50	0.60		9.00		
			8	1.50	0.60		7.20		
			8	1.50	0.60		7.20		
			8	1.50	0.60		7.20		
			7	1.50	0.60		6.30		
							50.40	5678.06	286174.22
							GRAND TOTAL		10112471

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9/04/2021

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